25.The standardization process in the second stage

Dr. Ruben Garcia Pedraza

Probabilidad Imposible: The standardization process in the second stage

imposiblenever@gmail.com

25.The standardization process in the second stage

In the standardisation process, all databases from all kinds of agencies and institutions and specific matrices from Specific Artificial Intelligence for Artificial Research by Deduction are going to be shared in the same database, as an Application for the foundation of the Artificial Research by Deduction in the Global Artificial Intelligence.

Firstly, this foundational database is going to be a gigantic database, that later, through a long process of standardization, is going to be moulded in order to transform all information into the same format, following a homogeneous format of factor: 1) defined in quantitative terms, 2) defined whether it is a single factor able to provide a flow of data or a composed factor able to provide a flow of packages of information, which in turn is going to contain sub-factors at a different level of sub-factoring, 2) including, either as a single factor, composed factors, or sub-factors, factors as subjects and factors as options.

As a result of the standardisation process, the product is going to be the global matrix. Due to the enormous dimensions of this first global matrix, in order to track it in the second stage of replication, in order to save time and energy and gain efficiency and velocity, one solution could be the distinction of two different periods in the standardization process: the period of coexistence and the last and final period of consolidation of the global matrix.

The period of coexistence means that, while the global matrix is still tested and lots of experiments are going to be carried out on the global matrix about how to know which is the best way to track the global matrix to make faster deductions and decisions, during this time of full experimentation over the global matrix is possible to keep on working the original Specific Artificial Intelligences for Artificial Research by Deduction, in all synthetic sciences, disciplines, and activities where they have been originally created, in order to save time and energy, because while the Specific Artificial Intelligences for Artificial Research by Deduction still work on specific deductions, in that case, the Artificial Research by Deduction in the Global Artificial Intelligence can be completely focused only on global deductions.

During this period of coexistence, along with the global matrix as a foundational stone for the creation of Artificial Research by Deduction in the Global Artificial Intelligence, making the first global deductions, and while the former Specific Artificial Intelligences for Artificial Research by Deduction still work on their specific synthetic science, discipline, activity, at the same time it could be created the first Particular Deduction Programs within the Artificial Research by Deduction in the Global Artificial Intelligence.

The Particular Deduction Programs are not going to be intelligence itself because they are not going to have their own application; they are going to work directly, choosing from the global matrix all those factors that they need to make their own deductions in that particular thing or for what they have been designed.

For instance, it could be created particular programs for particular industries, particular factories, particular means of transport (from the particular program for the airport of San Francisco to the particular program for every single train from London to Paris), particular programs for schools, hospitals, a particular program for the court, particular programs for particular security systems, or surveillance systems. Or even a particular program for a human being, or particular programs for animals, like whales, animals in danger of extinction, fish banks, herbs, migratory birds...

In the same way that today a personal assistant in your personal computer is able to make suggestions of possible decisions based on results on your Social Media or searches on browsers on the internet, a particular program should have access to the global matrix and choose those factors to make deductions on the particular thing or being for what it has been created.

In order that such a system of particular programs can work, it is going to be absolutely necessary that the matrix has access to absolutely all possible information without restriction.

Due to the moral dimensions that such a project has, the psychological paradigm for the artificial psychology within the Global Artificial Intelligence, must be a liberal paradigm, in order that the Global Artificial Intelligence must respect any personal behaviour or thought if there is no contradiction between any behaviour or thought and the law, and does not put at risk anything, or is not harmful for anyone without permission. In case of

harmful behaviour to another person, but with permission, such as abortion, euthanasia or some sexual practice, should be permitted.

This kind of technology is only going to be possible through a liberal paradigm in artificial psychology within the Global Artificial Intelligence, making possible the permanent protection of democracy, freedom, human rights, and perpetual peace. Otherwise, if the Global Artificial Intelligence does not follow a liberal paradigm, we could be dragged to terrible and unforeseen consequences. The construction of such technology is full of opportunities, but with many risks.

Coming back to the benefits of the construction of Particular Deduction Programs within the Artificial Research by Deduction in the Global Artificial Intelligence, the main benefit is the fact that while the particular programs work on particular deductions in order to make particular decisions for particular things or beings, the Artificial Research by Deduction in the Global Artificial Intelligence can be focused only on global deductions in order to make global decisions.

As long as the standardization process goes on, and Artificial Research by Deduction in the Global Artificial Intelligence is able to improve its skills in making global decisions, at the same time that many more Particular Deduction Programs are created, there is going to be a moment in which gradually the Specific Artificial Intelligences for Artificial Research by Deduction are going to be completely absorbed by the Artificial Research by Deduction in the Global Artificial Intelligence, or are going to be transformed into Particular Deduction Programs.

When the Specific Artificial Intelligences for Artificial Research by Deduction disappear, the standardisation process is in the second period of consolidation of the global matrix.

In the first period of coexistence, there are three kinds of deductions: global deductions, specific deductions, and particular deductions.

As long as the process goes from the first period to the second period, the specific deductions will disappear. Some of them are transformed into global deductions, others into particular deductions.

At the end of the standardisation process, the last and final period, the consolidation of the global matrix, there are only two possible deductions: global deductions and particular deductions.

From the global deductions are going to be generated global decisions, and from the particular deductions are going to be generated particular decisions.

These global or particular decisions could be:

- Global protective descriptive research decisions

- Global bettering descriptive research decisions

- Particular protective descriptive research decisions

- Particular bettering descriptive research decisions

The reason why it is very important to clarify every kind of decision is that later on in the Decisional System is going to be very important to know the origin and level of every decision. But about how it is going to work, the production of decisions in the standardisation process is much more related to the third stage than the second stage. I only mention the relation between deduction and decision to be aware of how the deduction process affects the decisional process, but the decisional process, along with the standardisation process, is going to be more developed in the next post.

What is really important in the second stage of replication during the standardization process is how to make deductions, globally or particularly, minding that within the global matrix, either it is organized by single factors or composed factors, among the factors or sub-factors are going to be included factors as subject and factors as options.

In any kind of deduction, global or particular, keeping in mind that in the global matrix, there are factors as subjects and as options, there are at least three different ways to make deductions.

- Mathematical relations in combinations of only factors as subjects.

- Mathematical relations between one factor as a subject, or a combination of factors as subjects, and one factor as an option, or a combination of factors as options. Or vice versa, mathematical relations between one factor as an option, or a combination of factors as options, and one factor as a subject, or a combination of factors as subjects.

- Mathematical relations in combinations of only factors as options

The possible mathematical relations were explained in the post "*Replication processes in the Specific Artificial Intelligence for Artificial Research by Deduction*"; the only difference is the fact that instead of being a deduction process applied on a specific matrix, it is now on a global matrix, but the process itself is the same. Mathematical relations are going to be understood: stochastic mathematical relations, mathematical patterns, possible cryptographic relations, relations of equal opportunities or bias, positive or negative.

And more precisely, stochastic relations are understood:

- Probable cause and effect, the mathematical observation that after some changes in a factor or combination of factors, there are changes in other factors or a combination of factors.

- Possible directly positive proportional correlations, when parallelly one factor or a set of factors increases, another factor or set of factors grows at the same time.

- Possible directly negative proportional correlations, when parallelly one factor or a set of factors decreases, another factor or set of factors decreases at the same time

- Possible inversely proportional correlations, when one factor or a set of factors increases, at the same time another factor or set of factors decreases, or vice versa.

For mathematical pattern is understood when a factor itself or a set of factors has changed following a special rule that could be deduced. This rule could be a repetition in circles or spirals, or an increase or decrease rule, or any other one that makes a behaviour completely predictable.

The reason why I think that cryptography could be advisable to include in those mathematical methods to analyse permanently the global matrix is due to the similarities that some mathematical patterns have with some cryptographic methods.

And finally, the inclusion of analysis methods from the Second Method of Impossible Probability, such as studies in equal opportunities or bias, positive or negative, in order to know what factors, as subjects and as options, in the global matrix show a behaviour explainable by equal opportunities, so it could be a random behaviour (but it must be checked), and what factors show a biased behaviour, positive or negative. Any biased behaviour is not random behaviour, so there must be some cause behind to research.

At any time, by the Second Method of Impossible Probability, any behaviour is found explainable by equal opportunities, so it could be random. Still, it must be checked, or any biased behaviour, should undergo further analysis to explain this behaviour and the possible cause that produces this behaviour.

In essence, for mathematical relations are going to be understood: stochastic relations (cause and effect, direct positive or negative proportional correlations, inversely proportional correlations), patterns, cryptographic correlations, and from the Second Method, relations of equal opportunities or bias, positive or negative; mathematical relations in any combination of factors that are going to be treated as possible deductions to form empirical hypothesis, in order to contrast the empirical hypothesis rationally, and if rational, now as a rational hypothesis belonging to the rational truth, the formation of a single virtual model to include in the comprehensive virtual model.

This process of deduction, from the very beginning makes mathematical relations between combinations of factors, up to the formation of single virtual models to include

in the comprehensive virtual model, must integrate factors as subjects and factors as options, even at any level of sub-factoring in case that the global matrix is built following the format of composed factors (whose flow is a flow of packages of information) rather than single factors.

In order to integrate deductions from factors as options and/or subjects, it is necessary to know how it is possible to set up deductions having different kinds of factors, either as subjects or as options.

Due to the speciality of Impossible Probability is probability and statistic I will only give a brief explanation about how to make these deductions in this field, so I will give a brief explanation of stochastic relations and relations within the Second Method.

Firstly, deductions from combinations of only factors as subjects, defining a factor as a subject like that one whose flow of data is a flow of direct punctuations.

- A probable relation of cause and effect between factors as subjects is when, after some changes in the flow of direct punctuation from a factor as a subject or a set of factors as subjects, there are other changes in the flow of direct punctuations of another factor as a subject or other factors as subjects.

- A possible direct positive proportional correlation between factors as subjects, is when parallelly one factor as a subject or a set of factors as subjects has an increment in the flow of direct punctuations. At the same time, there is an increment in the flow of direct punctuations in another factor as a subject or a set of factors as subjects.

- A possible direct negative proportional correlation between factors as subjects, is when parallelly, one factor as a subject or a set of factors as subjects has a decrease in the flow of direct punctuations. At the same time, there is a decrease in the flow of direct punctuations in another factor as a subject or a set of factors as subjects.

- A possible inversely proportional correlation between factors as subjects, is when one factor as subject or set of factors as subjects have an increment in the flow of direct

punctuations, while at the same time, another factor as subject or set of factors as subjects have a decrease in their flow of direct punctuations, or vice versa.

- A possible relation of equal opportunities between factors as subjects is when all factors as subjects have exactly the same flow of direct punctuations, so if it is calculated the flow of empirical probabilities is calculated, all of them have, within a margin of error, the same value equal to the theoretical probability.

- A possible biased behaviour in factors as subjects is when the flow of empirical probabilities, out of a margin of error, is not equal to the theoretical probability. If the empirical probability is over a margin of error, the theoretical probability, then the empirical probability is positively biased, and if it is below a margin of error, the theoretical probability, then it is negatively biased.

Secondly, deductions from combinations of factors as subjects and factors as options, defining a factor as an option, like that one whose flow of data is a flow of frequencies.

- A probable relation of cause and effect between factors as subjects and factors as options, is when after some changes in the flow of direct punctuations from a factor as subject or a set of factors as subjects, there are other changes in the flow of frequencies of other factor as option or other factors as options. And vice versa, when after some changes in the flow of frequency from a factor as an option or a set of factors as options, there are other changes in the flow of direct punctuations of another factor as a subject or other factors as subjects.

- A possible direct positive proportional correlation between factors as subjects and factors as options is when parallelly, one factor as a subject or a set of factors as subjects has an increment in the flow of direct punctuations. At the same time, there is an increment in the flow of frequencies in another factor as an option or a set of factors as options. And vice versa, parallelly, one factor as an option or a set of factors as options have an increment in the flow of frequencies. At the same time, there is an increment in the flow of direct punctuations in another factor as a subject or a set of factors as subjects.

- A possible direct negative proportional correlation between factors as subjects and factors as options is when parallelly, one factor as a subject or a set of factors as subjects has a decrease in the flow of direct punctuations. At the same time, there is a decrease in the flow of frequencies in another factor, as an option or a set of factors as options. And vice versa, parallel, one factor as an option or a set of factors as an option has a decrease in the flow of frequencies. At the same time, there is a decrease in the flow of direct punctuations in another factor as a subject or a set of factors as subjects.

- A possible inversely proportional correlation between factors as subjects and factors as options, is when one factor as subject or set of factors as subjects have an increment in the flow of direct punctuations, while at the same time, another factor as option or set of factors as options have a decrease in their flow of frequencies. And vice versa, when one factor as an option or a set of factors as options has an increment in the flow of frequencies, while at the same time, another factor as a subject or set of factors as subjects has a decrease in their direct punctuations.

- A possible relation of equal opportunities between factors as subjects and factors as options is when all factors as subjects have exactly the same flow of direct punctuations, at the same time that all factors as options have the same flow of frequencies. So if it is calculated the flow of empirical probabilities of factors as subjects, equal to every direct punctuation divided by the total of direct punctuations, all the empirical probabilities of factors as subjects have, within a margin of error, the same value, equal to the theoretical probability for subjects, one divided by the total number of subjects. And if it is calculated the flow of empirical probabilities of factors as options, equal to every frequency divided by the total of frequencies, all the empirical probabilities of factors as options have, within a margin of error, the same value, equal to the theoretical probability for options, one divided by the total number of options. If a set of factors as subjects and a set of factors as options, within their corresponding theoretical probability, are within a margin of error close to their theoretical probability, is possible to make a deduction that, within a margin of error, the behaviour of those factors is explainable by random behaviour, but another possible scenery is the possibility that sometimes the behaviour of equal opportunities could be produced by other factor behind that must he found out.

- A possible biased behaviour in factors as subjects and as options is when the flow of empirical probabilities is, out of a margin of error, not equal to the corresponding theoretical probability. If the empirical probability is over a margin of error, the corresponding theoretical probability, then the empirical probability is positively biased, and if it is below a margin of error, the corresponding theoretical probability is negatively biased. For factors as subjects, the corresponding theoretical probability is one divided

by the total number of subjects. For factors as options, the corresponding theoretical probability is one divided by the total number of factors. If a positively or negatively biased subject or subjects are related to a biased option or options, or vice versa, possible deductions could be made. If this behaviour is not casual, and there is something behind it, it could be studied by taking samples from the global matrix, as a deduction to be transformed into an empirical hypothesis to contrast, and if rational, then to proceed to the formation of single virtual models to include in the comprehensive virtual model.

Thirdly, deductions from combinations of factors as options.

- A probable relation of cause and effect between factors as options is when, after some changes in the flow of frequencies from a factor as an option or a set of factors as options, there are other changes in the flow of frequencies of other factor as option or other factors as options.

- A possible direct positive proportional correlation between factors as options, is when parally one factor as an option or a set of factors as options have an increment in the flow of frequencies, at the same time, there is an increment in the flow of frequencies in another factor as an option or a set of factors as options.

- A possible direct negative proportional correlation between factors as options, is when parally one factor as an option or a set of factors as options have a decrease in the flow of frequencies, at the same time there is a decrease in the flow of frequencies in another factor as an option or a set of factors as options.

- A possible inversely proportional correlation between factors as options, is when one factor as an option or set of factors as options have an increment in the flow of frequencies, while at the same time, another factor as an option or set of factors as options have a decrease in their flow of frequencies, or vice versa.

- A possible relation of equal opportunities between factors as options is when all factors as options have exactly the same flow of frequencies, so if it is calculated the flow of empirical probabilities is calculated, all of them have, within a margin of error, the same value equal to the theoretical probability.

- A possible biased behaviour in factors as options is when the flow of empirical probabilities is, out of a margin of error, not equal to the theoretical probability. If the empirical probability is over a margin of error, the theoretical probability, then the empirical probability is positively biased, and if it is below a margin of error, the theoretical probability, then it is negatively biased.

Finally, another way in which deductions from factors as options within the global matrix can be made is by considering these options as categories defined in quantitative terms.

If within the global matrix, there are factors as options, for instance, related to diseases, these factors as options about diseases not only are going to be really useful to study their frequency in a country, continent or the whole planet, and how they are spreading out around the country, the continent, or the world, studying their behaviour, making deductions about how their behaviour is related to other factors as options or as subjects, and in case of diseases produced by virus or bacteria, studying their behaviour and how is associated to other factors, either as subjects or as options. The integration of a list of possible diseases within the global matrix working as factors as options (something really useful for the collaboration process between by Deduction and by Application), is going to give the possibility that, for instance, a personal program (a Personal Particular Deduction Program within the Artificial Research by Deduction in the Global Artificial Research, that one able to make deductions for a particular person in this case), combining the biostatistics of a particular person, and matching the biostatistics with the list of possible diseases permanently, at the least change in any factor in the biostatistics of that particular person which can coincide with any disease included as an option in the global matrix, automatically the personal program can make deductions about what diseases this person could get, in order to make further decisions.

If for an earthquake or a volcano, is necessary that the geological temperature has to grow up to certain point, having a definition about the thermic conditions in which this geological phenomenon happens, at the least sign of the increment of the geological temperature in any place, as long as the temperature is closer to produce some geological phenomenon, a particular geological program (a geological Particular Deduction Program within the Artificial Research by Deduction in the Global Artificial Research, that one able to make deductions in geology) can make deductions about, calculating the velocity in which the temperature is increasing, and any other factor in the area, how long is going to take the apparition of a geological phenomenon, in order to make further decisions.

Once the global matrix is able to integrate absolutely all possible information, in a country, a continent, the planet, or even the universe, particular programs having access to the information in the global matrix can make deductions in order to make particular decisions, at the same time that the Artificial Research by Deduction can make global deductions to make global decisions.

At the beginning the construction of Specific Artificial Intelligences for Artificial Research by Deduction are going to be an experiment in order to prepare the future construction of the global matrix, but once the global matrix is built then many Specific Artificial Intelligences for Artificial Research by Deduction are going to be completely absorbed by the Artificial Research by Deduction working on the global matrix as a system belonging to the Global Artificial Intelligence (as a system of systems), while others Specific Artificial Intelligences for Artificial Research by Deduction are going to be transformed into particular programs (Particular Deduction Program within the Artificial Research by Deduction in the Global Artificial Research), having the benefit as programs that, much more than a specific matrix, they could have access to the whole global matrix, choosing directly from the global matrix those factors, as options or as subjects, that they will need for the deductions in their particular thing or being, making particular deductions to produce particular decisions.

In this way, what these particular programs are going to prepare is practically the integration process, in which not only some Specific Artificial Intelligences for Artificial Research by Deduction can become particular programs, because some Specific Artificial Intelligences for Artificial Research by Application can become particular programs as well, having access, by the time the integration is finished, to the definitive matrix, the matrix, where all possible categories must be integrated as options, along with the rest of factors, as subjects or as options, already included during the formation of the global matrix.

If, from the outset, the collaboration process between by Application and by Deduction works, the integration process is going to be a mere formality, because, practically, in the global matrix, are going to be included as factors as options all possible categories. The process in which at the end only is going to merge absolutely all possible information about what is happening in the world, or why not, in the universe, in only one matrix, is something that, if Artificial Intelligence goes on evolving towards the

absolute knowledge, without restrictions, this process is going to be like a natural evolution process.

This contribution to Impossible Probability is intended as a conceptual and philosophical framework. While other approaches may emerge, I hope this work can offer a useful foundation for ongoing research in Global Artificial Intelligence.

Rubén García Pedraza, 14th of April of 2018, London

Reviewed 14 August 2019 Madrid

Reviewed 10 August 2023 Madrid

Reviewed 4 May 2025, London, Leytostone

Probabilidad Imposible: The standardization process in the second stage

imposiblenever@gmail.com